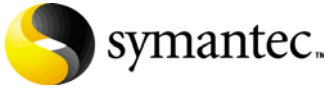
Symantec ESM Integrated Command Engine (ICE) Module Training Guide

For Windows and UNIX



ICE Module Training Guide

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Symantec ESM ICE module training guide

This guide includes the following topics:

- Introducing the ICE training guide
- Netstat exercise
- NTODrv exercise
- PSLogList exercise

Introducing the ICE training guide

The Integrated Command Engine (ICE) module changes Symantec's Enterprise Security Manager (Symantec ESM) into a dynamic security assessment tool that lets you to identify and implement new checks of your own design.

This guide introduces you to ICE module components and walks you through training exercises using three command line administration utilities: Netstat, NTODrv, and PSLogList.

Training prerequisites

To successfully execute all the training exercises described in this guide, you need the following:

- Microsoft Windows NT, Windows 2000, or Windows XP with Symantec ESM 5.1 or later installed.
- Symantec ESM 5.1 or later installed on Symantec ESM managers and agents in Windows or UNIX domains.
- Current security updates installed on Symantec ESM agents in Windows and UNIX domains.
- Scripts subdirectory under the ESM installation directory (usually /esm on UNIX systems or c:\Program Files\Symantec\ESM on Windows) on at least one of the Symantec ESM manager/agent systems that will be used for the training exercises. Create the Scripts subdirectory and copy Netstat, NTODrv, and PSLogList to the directory.

Note: Netstat is a standard utility available on most Windows and UNIX systems. Download the PSLogList utility from http://www.sysinternals.com. Download the NTODrv utility from: http://www.windowsecurity.com/pages/article.asp?id=454.

ICE module components

The ICE module is delivered with Symantec ESM Security Update releases for Symantec ESM-supported Window and UNIX operating systems.

The ICE module is included in the Symantec ESM default Dynamic Assessment policy. It is installed with the following components:

Table 1-1 ICE module components

Operating system	Component	Description
Windows	\ESM\bin\<architecture>\ice.exe	Main executable
	\ESM\register\<architecture>\ice_t.m	Windows NT .m file with module messages
	\ESM\register\<architecture>\ice_k.m	Windows 2000 .m file with module messages
	\ESM\register\<architecture>\ice_x.m	Windows XP .m file with module messages
UNIX	/esm/bin/<architecture>/ice	Main executable
	/esm/register/<architecture>/ice_u.m	UNIX .m file with module messages

Netstat exercise

This exercise shows you how to integrate the netstat command into the ICE module. In this exercise you will:

- Run the netstat system command on a Windows NT, Windows 2000, Windows XP, or UNIX system and review the output.
- Define the netstat data that you want to capture in an ICE template.
- Run the ICE module to capture and report netstat data.
- Complete related training exercises to test what you have learned.

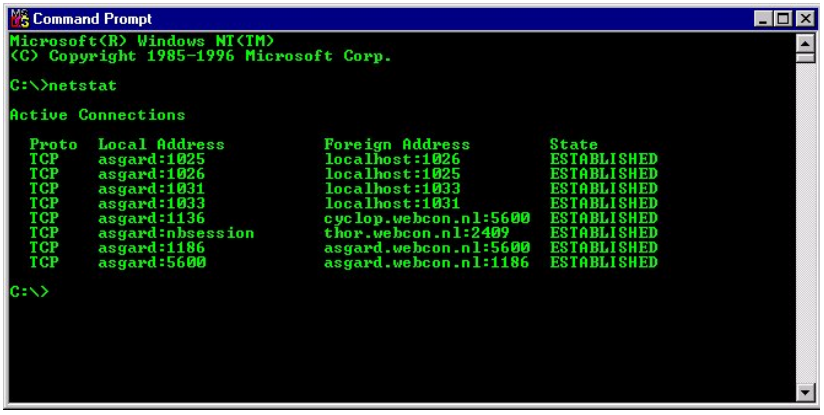
Running netstat and reviewing its output

Netstat is a TCP/IP executable program that queries protocol statistics and current TCP/IP network connections. It is important to monitor these network connections because potential hackers can use ill-configured protocols to break into your systems. Netstat is a standard utility that is available on most Windows and UNIX systems.

To run netstat and review its output

1. If it does not already exist, create the Scripts subdirectory in the ESM directory (usually /esm on UNIX systems or c:\Program Files\Symantec\ESM on Windows) on at least one of the Symantec ESM manager/agent systems that will be used for this training exercise.
2. Copy netstat to the Scripts directory.
3. Run netstat from the Command Prompt and observe the output, which should look like this:

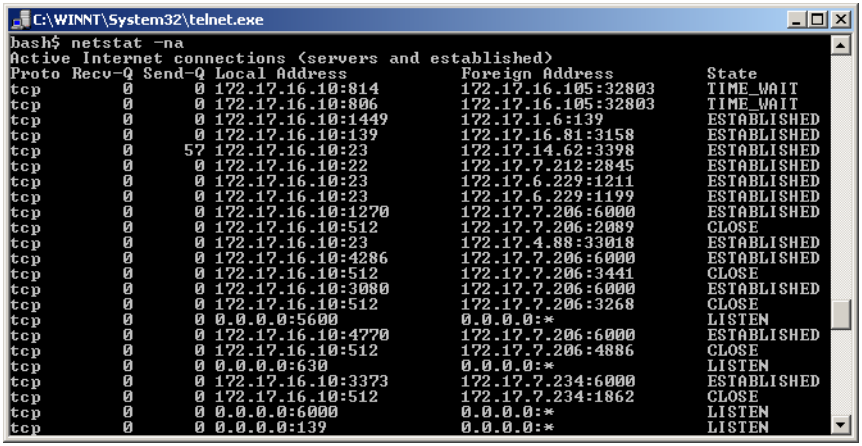
Figure 1-1 Windows netstat output



When you look at the output of the Windows netstat command you can see three distinct fields:

- Introduction: "Active Connections"
- Title line: "Proto," “Local Address,” “Foreign Address,” and “State"
- Data fields: “TCP,” “asgard:1025,” “localhost:1026,” and “ESTABLISHED"

Figure 1-2 UNIX netstat output



This UNIX example is similar:

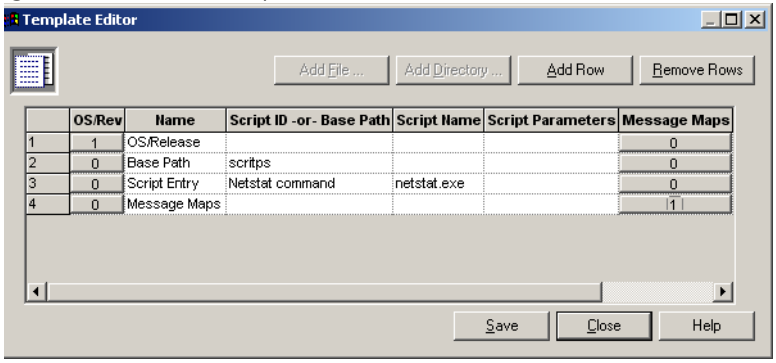
- Introduction: “Internet connections (servers and established)”
- Title line: “Proto,” “Recv-Q,” “Send-Q,” “Local Address,” “Foreign Address,” and “State.”
- Data fields: “tcp,” “0,” “57,” “172.17.16.10:23,” “172.17.14.62:3398,” and “ESTABLISHED.”

Data fields are output for all sockets. You can capture this output in the ICE module by defining a message map in the ICE template.

Building the netstat ICE template

The ICE template determines which command or script is to be run, where that command resides, and what the ICE module should do with the output of the command. In this exercise, you will use the Template Editor to create four template records: OS/Release, Base Path, Script Entry, and Message Maps. At the end of this exercise, your ICE template should look like Figure 1-3.

Figure 1-3 Ice template for Netstat exercise



To create an ICE template based on netstat

To create an ICE template based on netstat, first create a new ICE template and then create the following four template records:

- OS/Release
- Base Path
- Script Entry
- Message Maps

To create an ICE template

1. In the Symantec ESM console tree, right-click **Templates** and select **New**.
2. Select **Integrated Command Engine - all** from the list of available template types.
3. Name the new template **netstat**.

   Note: Do not name the template with a .ice file extension. Symantec ESM automatically adds the .ice extension.

4. Click **OK** and Symantec ESM automatically launches the Template Editor.

To add the OS/Release record to your netstat ICE template

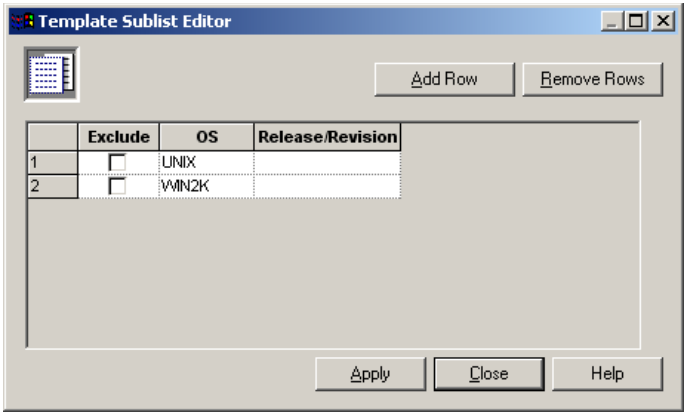
1. In the Template Editor, click **Add Row** to create a new template record.
2. Click the cell under the Name column to access the Name drop-down list and select **OS/Release**.
3. Delete all <NEW> entries from fields.
4. Click the **OS/Rev** button to launch the OS/Rev Sublist Editor. The button displays the number of entries in the OS/Rev sublist. Initially the number is set to 0.
5. In the OS/Rev Sublist Editor, click **Add Row** to add a new sublist record.
6. Click the cell under the OS column to access the OS drop-down list and select the operating system where you want to run the netstat command.

Note: To run the command on both Windows and UNIX agents, select one of the Windows options from the context menu for the first new record, then click **Add Row** and select one of the UNIX options for the second new record.

---

7. Uncheck the Exclude check box.
8. Delete the <NEW> entry in the Release/Revision column.
9. Click **Apply** and then **Close** to return to the Template Editor.

Figure 1-4 Windows and UNIX OS/Rev sublist records



To add the Base Path record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Base Path** from the Name drop-down list.
3. Remove all <NEW> entries from fields.
4. Type **scripts** in the Script ID -or- Base Path column on the Base Path template record. See row 2 in Figure 1-3.

   The Base Path tells the ICE module where the command program is located within the ESM directory. Using installation defaults, **scripts** points to \Program Files\Symantec\Esm\Scripts on Windows systems and to /esm/scripts on UNIX systems.

To add the Script Entry record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Script Entry** from the Name drop-down list.
3. Delete all <NEW> entries from fields.
4. Type **Netstat command** in the Script ID -or- Base Path column of the Script Entry template record.
5. Enter **netstat.exe** for Windows systems or **netstat** for UNIX systems in the Script Name column of the Script Entry template record. This is the name of the program that the ICE module will execute. For Windows, your entries will match row 3 in Figure 1-3 on page 7.

Note: Although several parameters can be used to fine tune the output of the netstat command, no Script Parameters will be defined in this exercise.

To add the Message Maps record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Message Maps** from the Name drop-down list.
3. Delete all <NEW> entries from fields.
4. Click the **Message Maps** button to launch the Message Maps Sublist Editor. The button displays the number of entries in the OS/Rev sublist. Initially the number is set to 0.

Note: You must define at least one message map so the ICE module will know what to do with the output of the netstat command. You can map the command output to any of the following ICE module messages with distinctive names and message classes.

Table 1-2 ICE module messages

Message name	Message title	Class	Security level	Intended to report
Failed	Test failed	1	Yellow	Failed command output
Passed	User test passed	0	Green	Successful command execution
Informational	User test information	0	Green	Information output by a command
Not Applicable	User test not applicable	0	Green	Agent system where command is not relevant
Not Available	User test not available	0	Green	Agent system where command is not accessible
User #1/0 User #2/0 User #3/0	User defined #<> w/value of 0	0	Green	User-customized, class 0 messages
User #1/1 User #2/1 User #3/1	User defined #<> w/value of 1	1	Yellow	User-customized, class 1 messages
User #1/2 User #2/2 User #3/2	User defined #<> w/value of 2	2	Yellow	User-customized, class 2 messages
User #1/3 User #2/3 User #3/3	User defined #<> w/value of 3	3	Yellow	User-customized, class 3 messages

Table 1-2 ICE module messages

Message name	Message title	Class	Security level	Intended to report
User #1/4 User #2/4 User #3/4	User defined #<> w/value of 4	4	Red	User-customized, class 4 messages

Note: You can change these message names and titles so that they are more meaningful to your particular use. For more information on changing messages, see the *Symantec Enterprise Security Manager Security Update User's Guide* for Windows or UNIX.

5 In the Message Maps Sublist Editor, click **Add Row**.

6 Click the cell under the Message column and select **User #1/0** from the drop-down list. This is a green level, user-customized message.

Note: Because the netstat data is not directly related to security, it should be mapped to a green level (or class 0) ICE module message.

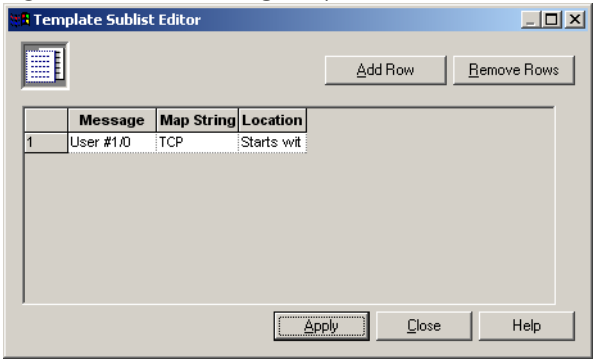
7 In the Map String field, replace the <NEW> entry by typing **TCP** for Windows and **tcp** for UNIX.

Note: Message Maps sublist entries are case sensitive.

8 Click the cell under the Location column and select **Starts with** from the drop-down list. This instructs the ICE module to capture all netstat data that starts with TCP.

Your message map sublist record should look like Figure 1-5.

Figure 1-5 Message map sublist record



9 Click **Apply** and **Close** to close the Template Sublist Editor.

10 Click **Save** and **Close** to save your netstat.ice template.

Running the ICE module and netstat.ice template

You can now run the ICE module to execute netstat and capture its output, using the netstat.ice template that you have created.

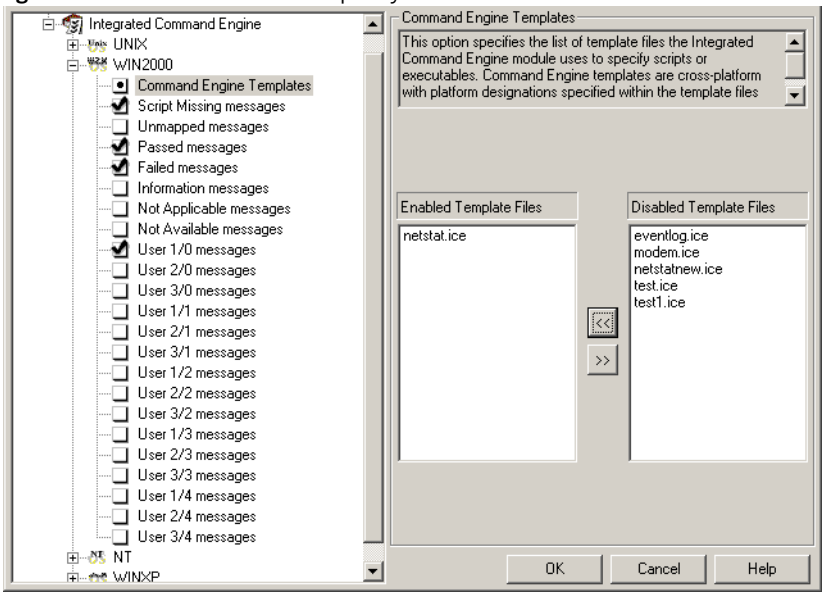
To run the ICE module and capture netstat output

1 Create a new Symantec ESM demonstration policy and add the ICE module to it. For information about creating and using policies, see your *Symantec ESM User Manual*.

2 Open the new policy and enable your netstat.ice template by selecting the **Command Engine Templates** option and moving the netstat.ice template to the Enabled Template Files name list.

3 Verify that the messages that you expect the ICE module to produce are enabled in the ICE module before clicking **OK** to close your demonstration policy.

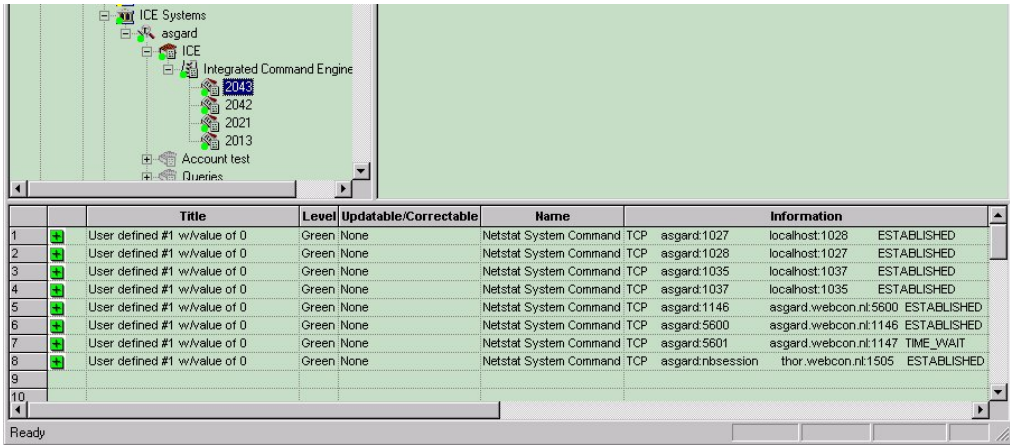
Figure 1-6 Netstat check policy



4 Run the demonstration policy on agents with operating systems that are included by the OS/Release definitions in the netstat.ice template.

The policy run should not take more than a few minutes, depending on the speed of the system and the latency in the network. When the run is completed, the output should look something like Figure 1-7.

Figure 1-7 Captured netstat messages


ICE Systems
asgard
ICE
Integrated Command Engine
2043
2042
2021
2013
Account test
Queries
Title
Level
Updatable/Correctable
Name
Information
1 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:1027 localhost:1028 ESTABLISHED
2 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:1028 localhost:1027 ESTABLISHED
3 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:1035 localhost:1037 ESTABLISHED
4 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:1037 localhost:1035 ESTABLISHED
5 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:1146 asgard.webcon.nl:5600 ESTABLISHED
6 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:5600 asgard.webcon.nl:1146 ESTABLISHED
7 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:5601 asgard.webcon.nl:1147 TIME_WAIT
8 User defined #1 w/value of 0 Green None Netstat System Command TCP asgard:nbsession thor.webcon.nl:1505 ESTABLISHED
9
10
Ready

Additional netstat exercises

Test what you have learned in the preceding sections of this guide by completing the following additional exercises.

Exercise 1

Enhance the netstat.ice template to also include UDP messages.

Exercise 2

Change the security levels of the TCP messages to Yellow and the UDP messages to Red.

Exercise 3

Look at the netstat output that is illustrated in Figure 1-1 on page 5 and note the socket connections to the local host. Now enhance the netstat.ice template to report only the socket connections to the local host.

NTODrv exercise

This exercise shows you how to integrate the ntodrv command into the ICE module. In this exercise you will:

- Run the NTODrv program on a Windows NT or Windows 2000 system and review the output.
- Define the NTODrv output that you want to capture in an ICE template.
- Run the ICE module to capture and report NTODrv output.
- Complete related training exercises to test what you have learned.

Running NTODrv and reviewing its output

NTODrv is an NT network driver/service query tool that lets you identify the modems that are installed on a Windows NT or Windows 2000 server.

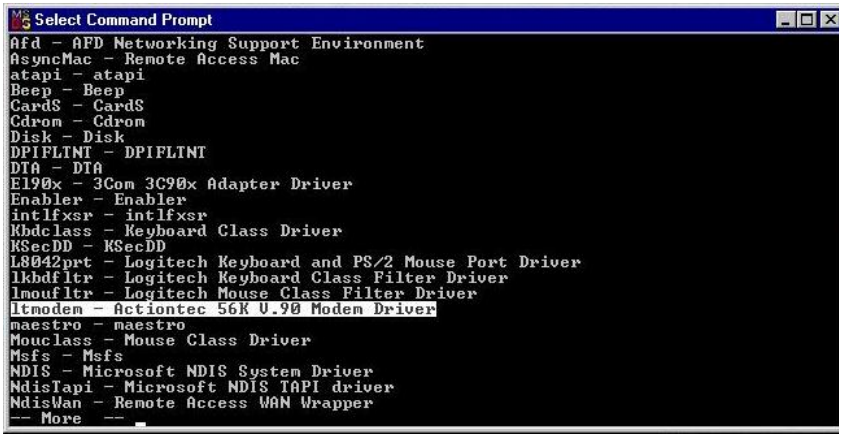
The discovery of existing modems in the enterprise environment is important to security because potential hackers could use these devices to break into the network.

Download the NTODrv utility from:
http://www.windowsecurity.com/pages/article.asp?id=454

To run NTODrv and review its output

1. If it doesn't already exist, create the Scripts subdirectory in the ESM directory (usually c:\Program Files\Symantec\ESM on Windows) on at least one of the Symantec ESM manager/agent systems that will be used for this training exercise.
2. Copy ntodrv to the Scripts directory.
3. Run ntodrv and watch the output, which should look like this:

Figure 1-8 NTODrv output

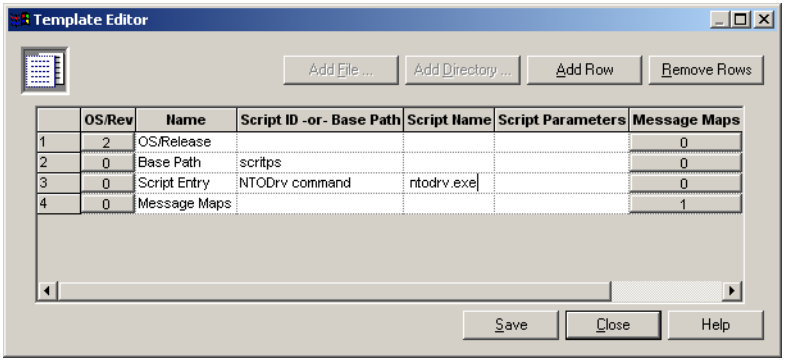

Select Command Prompt
Afd - AFD Networking Support Environment
AsyncMac - Remote Access Mac
atapi - atapi
Beep - Beep
CardS - CardS
Cdrom - Cdrom
Disk - Disk
DPIFLTNT - DPIFLTNT
DTA - DTA
E190x - 3Com 3C90x Adapter Driver
Enabler - Enabler
intlfxsr - intlfxsr
Kbdclass - Keyboard Class Driver
KSecDD - KSecDD
L8042prt - Logitech Keyboard and PS/2 Mouse Port Driver
lkbdfltr - Logitech Keyboard Class Filter Driver
lmoufltr - Logitech Mouse Class Filter Driver
ltmodem - Actiontec 56K V.90 Modem Driver
maestro - maestro
Mouclass - Mouse Class Driver
Msfs - Msfs
NDIS - Microsoft NDIS System Driver
NdisTapi - Microsoft NDIS TAPI driver
NdisWan - Remote Access WAN Wrapper
-- More --

Note: The ICE template that you will design in this exercise searches the output of the ntodrv command for any lines that contain the word "modem," such as the line highlighted in Figure 1-8.

Building the modem ICE template

The ICE template determines which command or script is to be run, where that command resides, and what the ICE module should do with the output of the command. In this exercise you will use the Template Editor to create four template records: OS/Release, Base Path, Script Entry, and Message Maps. At the end of this exercise, your ICE template should look like Figure 1-9.

Figure 1-9 ICE template for NTODrv exercise



To create an ICE template based on NTODrv

To create an ICE template based on netstat, first create a new ICE template and then create the following four template records:

- OS/Release
- Base Path
- Script Entry
- Message Maps

To create an ICE template

1. In the Symantec ESM console tree, right-click **Templates** and select **New**.
2. Select **Integrated Command Engine - all** from the list of available template types.
3. Name the new template **modem**.

   Note: Do not name the template with a .ice file extension. Symantec ESM automatically adds the .ice extension.

4. Click **OK** and Symantec ESM automatically launches the Template Editor.

To add the OS/Release record to your modem ICE template

1. In the Template Editor, click **Add Row** to create a new template record.
2. Click the cell under the Name column to access the Name drop-down list and select **OS/Release**.
3. Delete all <NEW> entries from fields.
4. Click the **OS/Rev** button to launch the OS/Rev Sublist Editor. The button displays the number of entries in the OS/Rev sublist. Initially the number is set to 0.
5. In the OS/Rev Sublist Editor, click **Add Row** to add a new sublist record.
6. Click the cell under the OS column to access the OS drop-down list and select the operating system where you want to run the netstat command.

   Note: To run the program on agents installed on different Windows versions, you can create a second sublist record for Windows 2000 or Windows NT.

7. Uncheck the Exclude check box.
8. Delete the <NEW> entry in the Release/Revision column.
9. Click **Apply** and then **Close** to return to the Template Editor.

To add the Base Path record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Base Path** from the Name drop-down list.
3. Remove all <NEW> entries from fields.
4. Type **scripts** in the Script ID -or- Base Path column on the Base Path template record. See row 2 in Figure 1-9.

   The Base Path tells the ICE module where the command program is located within the ESM directory. Using installation defaults, **scripts** points to c:\Program Files\Symantec\Esm\Scripts on Windows systems.

To add the Script Entry record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Script Entry** from the Name drop-down list.
3. Delete all <NEW> entries from fields.
4. Type **NTODrv command** in the Script ID -or- Base Path column of the Script Entry template record.
5. Type **ntodrv.exe** in the Script Name column of the Script Entry template record. This is the name of the program that the ICE module will execute. Your entries will match row 3 in Figure 1-9 on page 16. No Script Parameters are needed with the ntodrv command

To add the Message Maps record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Message Maps** from the Name drop-down list.
3. Delete all <NEW> entries from fields.
4. Click the **Message Maps** button to launch the Message Maps Sublist Editor. The button displays the number of entries in the OS/Rev sublist. Initially the number is set to 0.

Note: You must define at least one message map so the ICE module will know what to do with the output of the netstat command. You can map the command output to any of the ICE module messages. See Table 1-2, "ICE module messages," on page 10.

---

5. In the Message Maps Sublist Editor, click **Add Row**.
6. Click the cell under the Message column and select **User #1/4** from the drop-down list. This is a red level, user-customized message.
7. In the Map String field, replace the <NEW> entry by typing **modem**.

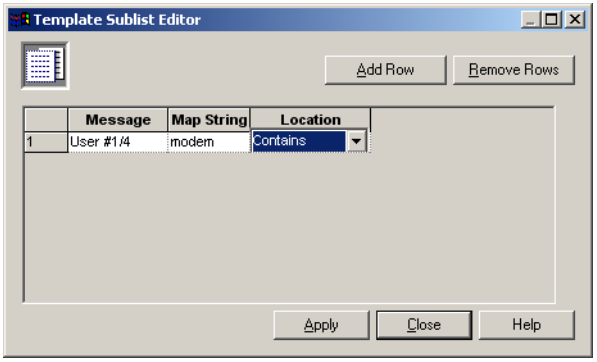
Note: Message Maps sublist entries are case sensitive.

---

8 Click the cell under the Location column and select **Contains** from the drop-down list. This instructs the ICE module to capture all ntodrv data that contains the text "modem."

Your message map sublist record should look like Figure 1-10.

Figure 1-10 Message map sublist record



9 Click **Apply** and **Close** to close the Template Sublist Editor.

10 Click **Save** and **Close** to save your netstat.ice template.

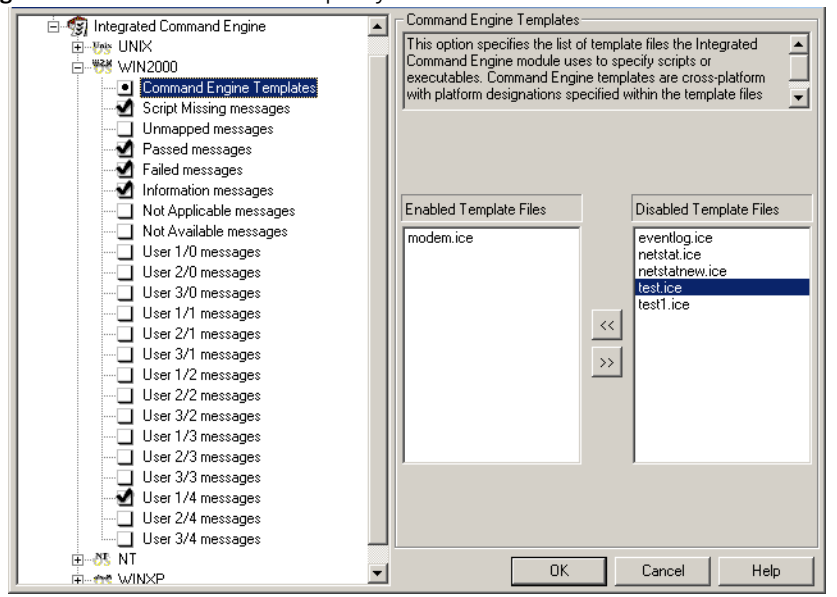
Running the ICE module and modem.ice template

You can now run the ICE module to execute the ntodrv command and capture its output, using the modem.ice template you have created.

To run the ICE module and capture NTODrv output

1. Create a new Symantec ESM demonstration policy and add the ICE module to it. For information on creating and using policies, see your *Symantec ESM User Manual*.
2. Open the new policy and enable your modem.ice template by selecting the **Command Engine Templates** option and moving the modem.ice template to the Enabled Template Files name list.
3. Verify that the messages that you expect the ICE module to produce are enabled in the ICE module. Your policy should look like Figure 1-11. Click **OK** to close your demonstration policy.

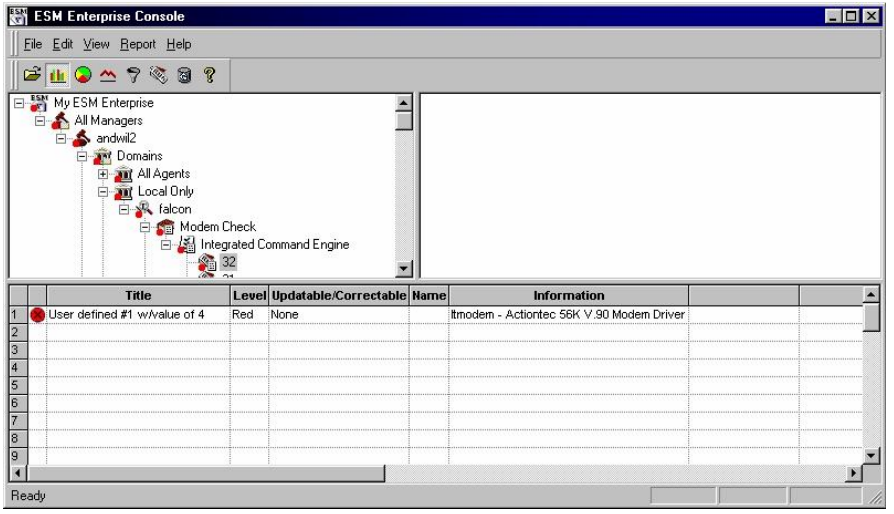
Figure 1-11 Modem check policy



4 Run the demonstration policy on the Windows system where you installed the NTOdrv utility. This should take only a few moments depending on the speed of the system and the latency in the network.

After the policy has run, the report data should look something like Figure 1-12.

Figure 1-12 Modem check policy run report



Additional NTODrv exercises

Test what you have learned in the preceding sections of this guide by completing the following additional exercises.

Exercise 1

Enhance the modem.ice template to make allowances for case variations (e.g. Modem, MODEM).

Exercise 2

Search for additional drivers that may or may not be desired and map appropriate messages to those occurrences.

PSLogList exercise

This exercise shows you how to integrate the PSLogList utility into the ICE module. In this exercise you will:

- Run the PSLogList utility with the -s parameter to display the contents of the Windows Event Log on a Windows NT, Windows 2000, or Windows XP system and review the output.
- Define the Event Log data that you want to capture in an ICE template.
- Run the ICE module to capture and report Event Log data.
- Complete related training exercises to test what you have learned.

Running PSLogList and reviewing its output

PSLogList is a utility that displays the contents of the Event Log from a local or remote computer. Viewing the contents of the Event Log lets you monitor certain types of event notifications that occur in a customer's environment.

Using PSLogList with the ICE module is not meant as a substitute for real-time event monitoring. Real-time event monitoring is best accomplished using a tool such as Symantec Intruder Alert or Symantec Host IDS.

Download the PSLogList utility from http://www.sysinternals.com

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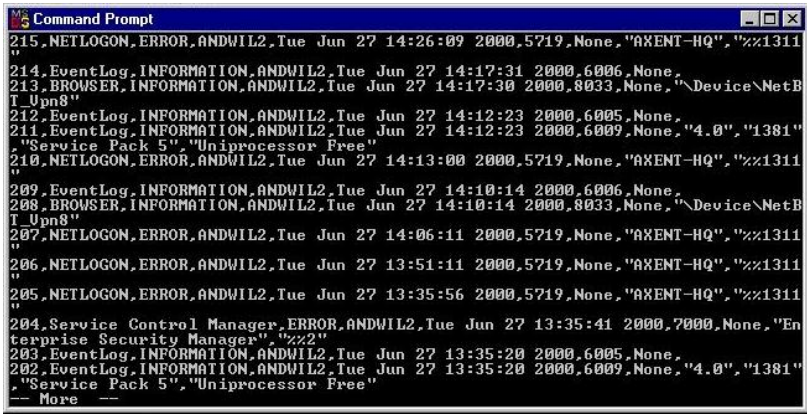
Note: PSLogList is also bundled with several command line administration tools and can be downloaded as PSTools.

To run PSLogList and review its output

1. If it doesn't already exist, create the Scripts subdirectory in the ESM directory (usually c:\Program Files\Symantec\ESM on Windows) on at least one of the Symantec ESM manager/agent systems that will be used for this training exercise.
2. Copy psloglist.exe to the Scripts directory.
3. Run the psloglist command with the -s parameter and watch the output, which should look like this:

Figure 1-13 PSLogList output

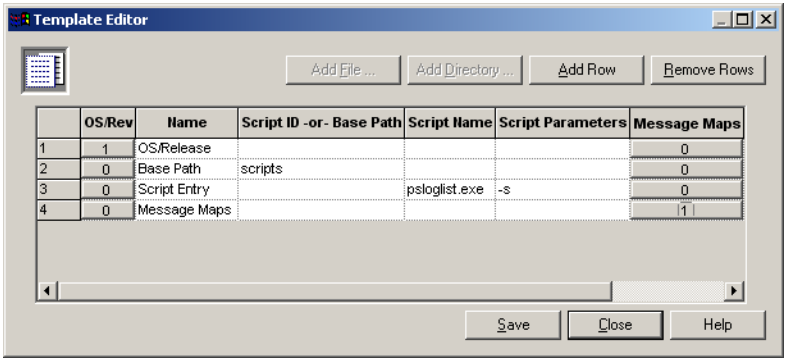


Note: The ICE template that you will design in this exercise searches for NetLogon "ERROR" messages that indicate domain logon failures. This illustrates how information can be extracted from the Event Log. In a production environment, you would build the template to report service failures.

Building the eventlog ICE template

The ICE template determines which command or script is to be run, where that command resides, and what the ICE module should do with the output of the command. In this exercise you will use the Template Editor to create four template records: OS/Release, Base Path, Script Entry, and Message Maps. At the end of this exercise, your ICE template should look like Figure 1-14.

Figure 1-14 ICE Template for PSLogList exercise



To create an ICE template based on PSLogList

To create an ICE template based on netstat, first create a new ICE template and then create the following four template records:

- OS/Release
- Base Path
- Script Entry
- Message Maps

To create an ICE template

1. In the Symantec ESM console tree, right-click **Templates** and select **New**.
2. Select **Integrated Command Engine - all** from the list of available template types.
3. Name the new template **eventlog**.

   Note: Do not name the template with a .ice file extension. Symantec ESM automatically adds the .ice extension.

4. Click **OK** and Symantec ESM automatically launches the Template Editor.

To add the OS/Release record to your modem ICE template

1. In the Template Editor, click **Add Row** to create a new template record.
2. Click the cell under the Name column to access the Name drop-down list and select **OS/Release**.
3. Delete all <NEW> entries from fields.
4. Click the **OS/Rev** button to launch the OS/Rev Sublist Editor. The button displays the number of entries in the OS/Rev sublist. Initially the number is set to 0.
5. In the OS/Rev Sublist Editor, click **Add Row** to add a new sublist record.
6. Click the cell under the OS column to access the OS drop-down list and select the operating system where you want to run the netstat command.

   Note: To run the program on agents installed on different Windows versions, you can create a second or third sublist record for Windows XP, Windows 2000, or Windows NT.

7. Uncheck the Exclude check box.
8. Delete the <NEW> entry in the Release/Revision column.
9. Click **Apply** and then **Close** to return to the Template Editor.

To add the Base Path record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Base Path** from the Name drop-down list.
3. Remove all <NEW> entries from fields.
4. Type **scripts** in the Script ID -or- Base Path column on the Base Path template record. See row 2 in Figure 1-14.

   The Base Path tells the ICE module where the command program is located within the ESM directory. Using installation defaults, **scripts** points to \Program Files\Symantec\Esm\Scripts on Windows systems.

To add the Script Entry record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Script Entry** from the Name drop-down list.
3. Delete all <NEW> entries from fields.
4. Type **psloglist command** in the Script ID -or- Base Path column of the Script Entry template record.
5. Type **psloglist.exe** in the Script Name column of the Script Entry template record. This is the name of the program that the ICE module will execute.
6. Type -s in the Script Parameters field to tell the ICE module to run psloglist command with the -s parameter. Your entries will match row 3 in Figure 1-14 on page 24.

To add the Message Maps record to your netstat ICE template

1. In the Template Editor, click **Add Row**.
2. Select **Message Maps** from the Name drop-down list.
3. Delete all <NEW> entries from fields.
4. Click the **Message Maps** button to launch the Message Maps Sublist Editor. The button displays the number of entries in the OS/Rev sublist. Initially the number is set to 0.

   Note: You must define at least one message map so the ICE module will know what to do with the output of the netstat command. You can map the command output to any of the ICE module messages. See Table 1-2, "ICE module messages," on page 10.

   ---

5. In the Message Maps Sublist Editor, click **Add Row**.

6 Click the cell under the Message column and select **Informational** from the drop-down list. This is a green level message that is intended to report information output from a command.

7 In the Map String field, replace the <NEW> entry by typing **NETLOGON,ERROR**.

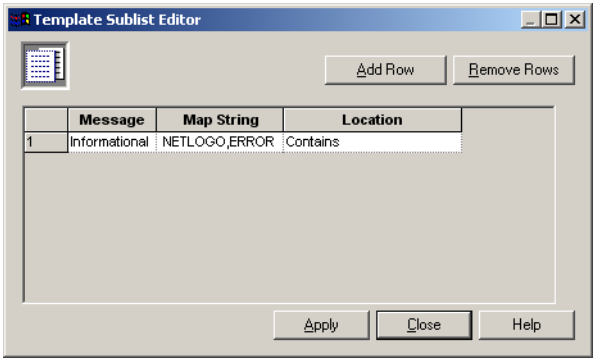
Note: Message Maps sublist entries are case sensitive.

---

8 Click the cell under the Location column and select **Contains** from the drop-down list. This instructs the ICE module to capture all Event Log data that contains the text "NETLOGON,ERROR."

Your message map sublist record should look like Figure 1-15.

Figure 1-15 Message map sublist record



9 Click **Apply** and **Close** to close the Template Sublist Editor.

10 Click **Save** and **Close** to save your netstat.ice template.

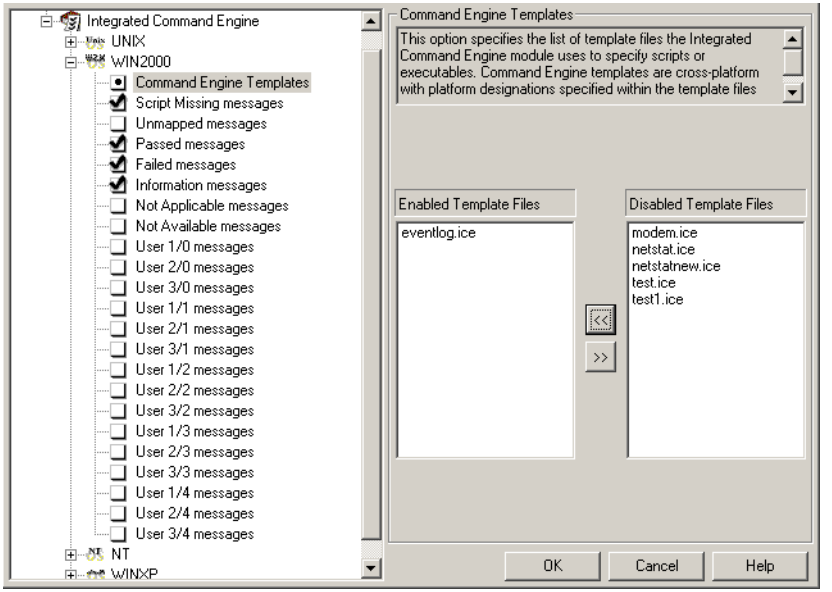
Running the ICE module and eventlog.ice template

You can now run the ICE module to execute the psloglist command and capture its output, using the eventlog.ice template that you have created.

To run the ICE module and capture PSLogList output

1. Create a new Symantec ESM demonstration policy and add the ICE module to it. For information on creating and using policies, see your *Symantec ESM User Manual*.
2. Open the new policy and enable your eventlog.ice template by selecting the **Command Engine Templates** option and moving the eventlog.ice template to the Enabled Template Files name list.
3. Verify that the messages that you expect the ICE module to produce are enabled in the ICE module. Your policy should look like Figure 1-16. Click **OK** to close your demonstration policy.

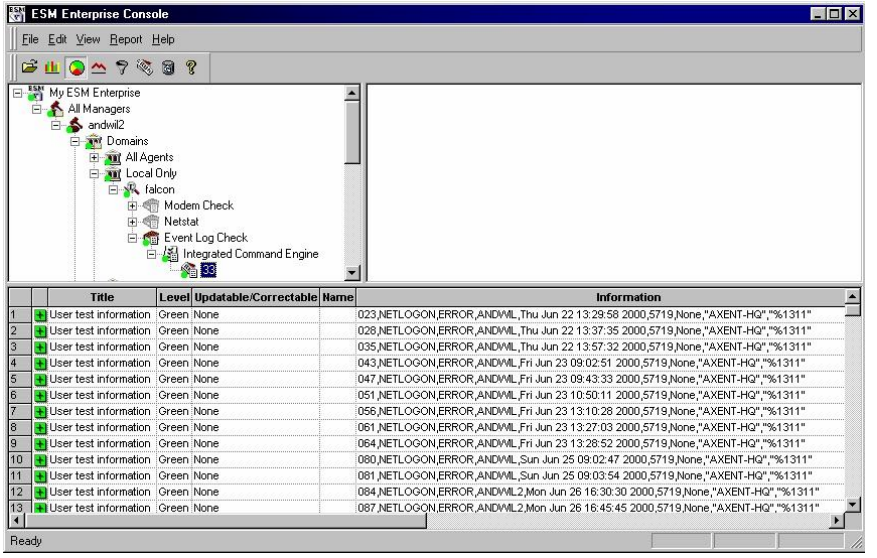
Figure 1-16 Event Log check policy



4 Run the demonstration policy on the Windows system where you installed the PSLogList utility. This should take only a few moments, depending on the speed of the system and the latency in the network.

After the policy has run, the report data should look something like Figure 1-17.

Figure 1-17 Event log check policy run report


ESM Enterprise Console
File Edit View Report Help
My ESM Enterprise
All Managers
andwil2
Domains
All Agents
Local Only
falcon
Modem Check
Netstat
Event Log Check
Integrated Command Engine
Title Level Updatable/Correctable Name Information
1 User test information Green None 023,NETLOGON,ERROR,ANDWIL,Thu Jun 22 13:29:58 2000,5719,None,"AXENT-HQ","%1311"
2 User test information Green None 028,NETLOGON,ERROR,ANDWIL,Thu Jun 22 13:37:35 2000,5719,None,"AXENT-HQ","%1311"
3 User test information Green None 035,NETLOGON,ERROR,ANDWIL,Thu Jun 22 13:57:32 2000,5719,None,"AXENT-HQ","%1311"
4 User test information Green None 043,NETLOGON,ERROR,ANDWIL,Fri Jun 23 09:02:51 2000,5719,None,"AXENT-HQ","%1311"
5 User test information Green None 047,NETLOGON,ERROR,ANDWIL,Fri Jun 23 09:43:33 2000,5719,None,"AXENT-HQ","%1311"
6 User test information Green None 051,NETLOGON,ERROR,ANDWIL,Fri Jun 23 10:50:11 2000,5719,None,"AXENT-HQ","%1311"
7 User test information Green None 056,NETLOGON,ERROR,ANDWIL,Fri Jun 23 13:10:28 2000,5719,None,"AXENT-HQ","%1311"
8 User test information Green None 061,NETLOGON,ERROR,ANDWIL,Fri Jun 23 13:27:03 2000,5719,None,"AXENT-HQ","%1311"
9 User test information Green None 064,NETLOGON,ERROR,ANDWIL,Fri Jun 23 13:28:52 2000,5719,None,"AXENT-HQ","%1311"
10 User test information Green None 080,NETLOGON,ERROR,ANDWIL,Sun Jun 25 09:02:47 2000,5719,None,"AXENT-HQ","%1311"
11 User test information Green None 081,NETLOGON,ERROR,ANDWIL,Sun Jun 25 09:03:54 2000,5719,None,"AXENT-HQ","%1311"
12 User test information Green None 084,NETLOGON,ERROR,ANDWIL2,Mon Jun 26 16:30:30 2000,5719,None,"AXENT-HQ","%1311"
13 User test information Green None 087,NETLOGON,ERROR,ANDWIL2,Mon Jun 26 16:45:45 2000,5719,None,"AXENT-HQ","%1311"
Ready

Additional PSLogList exercise

Test what you have learned in the preceding sections of this guide by completing the following additional exercise.

Exercise 1

Enhance the eventlog.ice template to report service failures.